



United States
Department of
Agriculture



Forest
Service

Environmental Assessment Forest Road 402/Ozark Road Improvement Project

**Shawnee National Forest
Hidden Springs Ranger District**

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Chapter 1 - Purpose and Need

The Forest Service has prepared this Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) of 1969 and other relevant laws and regulations. This document discloses the potential direct, indirect and cumulative effects resulting from the Forest Road (FR) 402/Ozark Road Improvement Project and a no-action alternative.

Background

Pope County received funding to upgrade Ozark Road (from Appel Road in McCormick to Water Tower Road) from a gravel surface to oil and chip. A portion of this road (FR402 from the intersection of Ozark and Burden Falls Roads to Appel Road, about 1.7 miles) is under Forest Service jurisdiction. Pope County has requested a road maintenance agreement to permit accomplishment of this road improvement work.

Purpose and Need for the Proposed Action

The purpose of this project is to execute a maintenance agreement with Pope County in order to allow improvement and maintenance of the FR402 section of Ozark Road. Ozark Road is a heavily used thoroughfare that is important for commuters, mail carriers, school buses and commercial traffic. The improvement would accommodate the public traffic, increase safety and reduce future maintenance costs.

Forest Plan Direction

FW77(G): "Manage the Forest transportation system for its intended use, to support resource management and to protect the investment. Forest roads and highways must be constructed to at least the minimum standards appropriate for their intended uses, considering safety, cost of transportation and effects on land and resources" (Forest Plan, Page 50).

Proposed Action

Under the agreement the Forest would authorize Pope County to maintain and improve FR402/Ozark Road from the intersection of Ozark and Burden Falls Roads to the intersection of Appel Road in McCormick, about 1.7 miles. The work would include replacement of eight culvert pipes, brushing and adding gravel, with disturbance limited to the existing road corridor. The road would be upgraded to an oil and chip surface. No standing live or dead trees greater than 3 inches in diameter at breast height (dbh) will be cut or removed to avoid potential adverse effects to both federally and state-listed bats that use trees as summer roosts.

Project Location

The project area is along FR402/Ozark Road from the intersection of Ozark and Burden Falls Roads to the intersection of Appel Road in McCormick, about 1.7 miles, in Pope County at R5E T11S (Figure 1).

Decision to be Made

Based on the environmental analysis, including the project record, the responsible official will decide whether or not to implement the proposed action.

Issues Related to the Proposed Action

This project will have only limited disturbance within the existing road corridor. We identified no significant issues to carry forward through the analysis.

Chapter 2 - Description of the Alternatives

This chapter describes and contrasts the alternatives considered in the project. An interdisciplinary team analyzed two alternatives, the proposed action and no action. Because we could identify no significant issues and could disclose the effects of the proposal by contrasting the proposed action with taking no action, we analyzed only those two alternatives.

Proposed Action

Under the road maintenance agreement the Forest would authorize Pope County to maintain and improve FR402/Ozark Road from the intersection of Ozark and Burden Falls Roads to the intersection of Appel Road in McCormick, about 1.7 miles. The work would include replacement of eight culvert pipes, brushing and adding gravel, with disturbance limited to the existing road corridor. The road would be upgraded to an oil and chip surface. Removal of brush and trees up to three inches dbh could occur during routine maintenance. The terms of the proposed maintenance agreement are included below.

THE COOPERATOR (Pope County Road District Number 2) SHALL:

1. Wash or otherwise clean all motorized equipment being used on this project of all vegetative and organic debris prior to bringing it to the project site. Should equipment need to be moved off site during the project, it shall be cleaned again prior to its return to the site.
2. Replace culvert pipes and perform motor grader work in preparation for applying an oil and chip surface. Culvert installation shall be in accordance with US Department of Transportation FP-03 (1999).
3. Perform all work within the existing and established road surface. Maximum traveled way width shall be 20 feet, maximum shoulder shall be 1 foot on either side of traveled way. Total maximum road surface width shall be 22 feet.
4. Surface blade the traveled way, clean established lead-off ditches, clean the existing ditchline and smooth the road surface where rock ledges are present and can be removed by either backhoe or trackhoe.
5. Not perform any clearing work to remove trees or brush, nor perform any clearing work when replacing culvert pipes.
6. Mark the location of culverts to be replaced and contact the Forest Service a minimum of 72 hours prior to any culvert replacement.
7. Create a splash basin, at the outlet of each culvert, utilizing a minimum of Illinois Class RR3 stone to prevent future erosion.
8. Place a 2-layer oil and chip surfacing to the existing roadway once road prep is complete.
9. Notify the Forest Service a minimum of 72 hours prior to placement of the oil and chip surfacing.
10. Follow the MUTCD (2009) for safety and traffic signing in the work zone, including utilizing flag people when needed.
11. Seed and mulch all areas disturbed by construction activity.
12. Assume all maintenance responsibility for this segment of roadway upon completion of work. Maintenance requirements are as follows:
 - a. Road surface width for maintenance shall be as listed in item 3 above.
 - b. Brushing limits shall be a maximum of 10 feet from edge of road surface and does not include removal of standing trees larger than 3 inches in diameter. Overhead clearing shall be a minimum of 14 feet above the road surface.
 - c. Mowing limits shall be a maximum of 10 feet from the edge of the road surface.
 - d. Mowing shall occur as often as necessary to ensure the safety of the traveling public.
 - e. Brushing shall occur between July 16 and April 14. Any trimming of limbs greater than 3 inches will be done between September 30 and April 1.

THE U.S. FOREST SERVICE SHALL:

1. Retain all jurisdiction responsibility for this segment of roadway.
2. Shall be onsite when culverts are installed.

No Action

This alternative would not implement any aspect of the proposal. The Forest would continue to maintain the road as a gravel road. This is a viable alternative, but it would not meet the purpose and need for this project.

Table 1. Summary of Effects by Alternative		
Resource	Effects of the Proposed Action	No Action
Heritage Resources	No effect	No effect
Soil and Water Resources	Effects would be temporary and localized	No effect
Botanical Resources	No effect	No effect
Threatened and Endangered Species	No effect	No effect
Regional Forester Sensitive Species	No effect	No effect
Management Indicator Species	No effect	No effect

Chapter 3 - Environmental Effects

This section discloses the environmental effects of implementing the proposed action contrasted with taking no action. It forms the scientific and analytic basis for the comparison of alternatives in the previous section. Knowing the expected environmental consequences of proposed activities gives the decision-maker a basis for selecting which alternative to implement. Analysis of cumulative effects considers all known past, present and reasonably foreseeable future actions that could affect the project area, including: vegetation management, recreation use, prescribed and wild fire and road maintenance.

Heritage Resources

The primary issue is the preservation and protection of heritage resources and the assurance that project implementation will not affect significant heritage resources. Archaeological sites are located on and in the ground and can be affected by any earth-disturbing activity. All earth-disturbing activities will be confined to the project area, so it is the area under consideration. In addition, the area within the present project area has obviously been disturbed by previous road construction and maintenance, and no additional disturbance is anticipated.

Much of the the project area was inventoried as part of past projects. Three archaeological sites are recorded near the project area, all of which are remains of historic occupations—farmsteads or features associated with farmsteads—and all are directly associated with the Ozark Road as a transportation corridor. Two of the sites have been determined to be potentially eligible for inclusion on the National Register of Historic Places (NRHP), while one has not. The site that is not eligible has been disturbed and includes a large boulder, a very shallow well or cistern, a rock pile that may be the remains of house foundations, a depression and two push-outs where a bulldozer has created a ditch to allow run-off.

The area of potential effect (APE) is defined as “...the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking” [36CFR 800.16(d)]. The APE for this project is the present road prism, the area contained in the road prism beginning and ending with the outside edge of the ditch. A road prism is the area of the ground containing the road surface.

No Action - There will be no direct, indirect or cumulative effects on heritage resources because implementation of this alternative would cause no earth-disturbing activities.

Proposed Action - There will be no direct or indirect effects on heritage resources stemming from implementation of this alternative. There are two known sites potentially eligible for inclusion on the NRHP adjacent to the Ozark Road, but they will not be affected by earth-disturbing activities. All earth-disturbing activities will occur within the present road prism. Because no direct or indirect effects are expected to heritage resources, there would be no cumulative effects.

Botanical Resources

The analysis presented here is a summary of the project working paper that contains a thorough review (Botanical Resources Working Papers, project record). The project road has been surveyed over many years by botanists and ecologists and has no record of any Regional Forester Sensitive Plant Species, species with viability evaluations or state-listed threatened or endangered species. The roadway edge, including about 25 feet on either side of the gravel, was floristically surveyed on May 10, 2012.

No federally listed plant species occur in or near the project area. No Regional Forester Sensitive Plant Species, species with viability assessments or state-listed threatened or endangered species were found at the time of the survey. With no rare species present, there will be no direct, indirect or cumulative effects on any rare plant resources from either of the alternatives.

Watershed (Soil, Water and Air) Resources

The analysis presented here is a summary of the project working paper that contains a thorough review (Watershed Working Papers, project record). The project area is located on five soil-mapping units with relatively gentle slopes. Nearly the entire area is located on units having moderate to severe potential for compaction. We consulted the Illinois Environmental Protection Agency (IEPA) 2012 Water Quality Report to assess the quality of major streams in and adjacent to the project area. The report did not cite Forest activities as a source of concern. We also consulted the IEPA air quality report, which indicated no problems with the proposed project.

Road resurfacing and culvert replacement would expose bare soil that could lead to accelerated erosion and sedimentation in the short term (less than one year). Sediment would be slightly increased during culvert replacement and road grading until vegetation becomes reestablished (a month or so). In the long term, sediment delivery to the stream system should be reduced by the oil and chip road surface. During paving activities, a minor, temporary decrease in local air quality is expected, although this will likely result in an improvement in air quality as the paving reduces transportation dust in the area.

Because short-term sediment increases will not exceed the normal amount of sediment generated by road-maintenance activities, we anticipate no measurable cumulative effect. Similarly, minimal, long-term sediment reduction is not likely to be a measurable improvement to any of the watersheds and would have no cumulative effect. We expect implementation of the proposed action to have no cumulative effects on watershed resources in the analysis area.

Wildlife Resources

Table 2. Wildlife Analysis Summary

Common Name	Scientific Name	Effects of the Proposed Action
Federally Listed Threatened, Endangered, Proposed, or Candidate Species		
Indiana bat	<i>Myotis sodalis</i>	Since no suitable Indiana bat summer roost trees will be cut or removed, the likelihood of adverse effects is virtually non-existent.
Gray bat	<i>Myotis grisescens</i>	It is highly unlikely that gray bats would be foraging within or near the proposed project area, therefore the likelihood of adverse effects is virtually non-existent.
Regional Forester Sensitive Species		
Timber rattlesnake	<i>Crotalus horridus</i>	There should be no direct, indirect, or cumulative adverse effects. The road improvements should not result in substantive changes in existing motor vehicle use rates.
Little brown myotis	<i>Myotis lucifugus</i>	Since no suitable roost trees will be cut or removed, there should be no direct, indirect, or cumulative adverse effects.
Northern long-eared myotis	<i>M. septentrionalis</i>	
Eastern small-footed bat	<i>M. leibii</i>	
Tri-colored bat	<i>Perimyotis subflavus</i>	
State-Listed Species		
Bewick's wren	<i>Thryomanes bewickii</i>	No suitable habitat affected by the road improvement activities; therefore, no direct, indirect or cumulative effects are anticipated.
Golden mouse	<i>Ochrotomys nuttalli</i>	

Since there will be no disturbance of suitable habitat for threatened, endangered or sensitive species, we expect no significant effects on wildlife. Table 2 presents a summary of potential effects from the wildlife working paper in the project record.

Wilderness Resources

The Wilderness Act of 1964 identifies four qualities of wilderness character: “untrammeled,” “natural,” “undeveloped,” and offering “outstanding opportunities for solitude or a primitive and unconfined recreation. We anticipate no significant effects on the untrammeled, natural, undeveloped, and solitudinous or primitive character of the wilderness from the proposed road improvement. The Illinois Wilderness Act of 1990 specifically mentions that activities will occur outside wilderness that could be heard from within wilderness.

The natural character of the wilderness could be altered in the short term by effects on air quality from grading and construction equipment, and on water quality from an increase in sediment delivery to the stream system from construction. However, once the road is paved, the amount of sediment in runoff will be greatly reduced. (See also Watershed [Soil, Water and Air] Resources).

Chapter 4 - Consultation and Coordination

USDA Forest Service Participation

Cindy Morris, Forest Engineer, ID Team Leader	Heather Carey, Archaeologist
Elizabeth Shimp, Supervisory Natural Resources Specialist	Matthew Lechner, Natural Resources Program Manager
Mary McCorvie, Forest Archaeologist	Richard Blume-Weaver, Planning and Resources Staff Officer
John DePuy, Soil Scientist	Monica Neal, Forest Supervisor’s Executive Assistant
Rod McClanahan, Wildlife Biologist	

Agencies and other Persons Consulted

Ed Cunningham, Pope County Road District No. 2	Congressman Shimkus’s staff
Senator Durbin’s staff	State Representative Forby’s staff
Senator Kirk’s staff	Sam Stearns, Local Resident

References Cited

FHWA, Federal Highway Administration, 2009. Manual on Uniform Traffic Control Devices. <http://mutcd.fhwa.dot.gov/pdfs/2009/mutcd2009edition.pdf>

USDOT, United States Department of Transportation, 1999. Standard Specifications For Construction of Roads and Bridges on Federal Highway Projects. <http://flh.fhwa.dot.gov/resources/pse/specs/fp-03/fp-03usc.pdf>

APPENDIX

Response to Comments

Comment: Scoping should occur before you complete an environmental assessment and supporting documents. Please explain why we were not contacted during the scoping period and given the opportunity to raise impacts to wilderness as an issue?

Response: The environmental assessment and supporting documents went out under a combined scoping and comment period since this proposal is straightforward and our internal scoping indicated little potential for adverse effects. We followed the Council on Environmental Quality's guidance, "Improving the Process for Efficient and Timely Environmental Reviews under the National Environmental Policy Act" (CEQ Memorandum, March 6, 2012), and determined that a focused environmental assessment with a combined scoping and comment period was appropriate. Although Forest Road 402 is adjacent to the Burden Falls Wilderness, we determined that there would be minimal, if any, impacts to the wilderness and that the net result in the long term would be beneficial to wilderness resources. (See also next comment.)

Comment: The water runoff and sediment from the construction project would drain into a wilderness area and may have significant effects on the wilderness. I believe that the Wilderness Act would require you to prepare an environmental impact statement. The environmental assessment fails to even mention the Burden Falls Wilderness that parallels the road to the north.

Response: The boundary of Burden Falls Wilderness parallels FR402/Ozark Road for about 1.2 miles. Since this road runs along a ridge-top, some drainage will flow into Ogden Branch Creek in the wilderness; some will flow into Hunting Branch Creek in the Bay Creek drainage. As we stated in the Watershed section of the environmental assessment, we anticipate that the sediment load will increase in the short term due to construction activities; however, we do not believe this increase will cause be a significant impact on aquatic or wilderness resources. Once the road is paved, we expect the amount of sediment in runoff to be greatly reduced. We have added a requirement for the seeding and mulching of the disturbed areas to reduce erosion potential. We have also added a section in the environmental assessment discussing anticipated effects on the wilderness.

Comment: A strict weight limit needs to be established for this segment of road to prohibit large, heavy trucks.

Response: Pope County has a 10-ton weight limit from January through April on roads that lead to this section of road. Beyond that, a weight limit would not be practical because gravel trucks used for road maintenance and driveway maintenance require access. This road is not expected to be a major haul route for heavy trucks because of its fairly remote location.

Comment: The Forest Service must closely monitor work done by Pope County to ensure that the width standards for the road itself and the mowing and brushing standards on either side are strictly enforced.

Response: The Forest Service will work with the county to ensure that the agreement is fulfilled.

Comment:

The use of a hydro-ax/vertical brush-mower for overhead clearing should be prohibited in order to adhere to the standard of not removing standing trees larger than three inches in diameter. Not far from this proposed project area, on Appel Road and other places, it is plain to see that Pope County has used hydro-axes/vertical brush mowers in such an inappropriate and destructive manner that large-diameter trees have died after a few rounds of mangled butchery. This should not be allowed to happen in this particular project area.

Response: Our current maintenance standards for brushing along this road do not prohibit the use of this type of equipment. The potential resource issues related to this project do not warrant our limiting the tools the county uses to maintain the road.

Comment: While this particular proposal calls for the Forest Service to retain jurisdictional responsibility for this segment of roadway, the Forest Service must plan to continue its jurisdiction into the future. Future management must ensure that this gateway to Burden Falls and Bay Creek Wildernesses, Bell Smith Springs, and other unique places remains in federal hands and does not become susceptible to the vagaries of local politics.

Response: We appreciate this comment; however, jurisdictional decisions would be made in the future and are not related to the current proposal.

Comment: As no resource damage or threatened, endangered or sensitive species would be affected, I hope the project will proceed as outlined.

Response: We appreciate this comment.